

## **FIRE PREVENTION AND FIRE EDUCATION**

This chapter provides direction for wildland fire prevention/education efforts, define individual roles and responsibilities, provide a prevention analysis process, and identify special wildland fire prevention/education emphasis programs.

### **OBJECTIVES**

The following are the primary objectives of the National Park Service wildland fire prevention/fire education program:

1. To establish active wildland fire prevention/education programs at the national, regional, and park levels.
2. To develop and implement a Servicewide prevention analysis process.
3. To identify specific prevention alternatives in the fire management plan.
4. To integrate and coordinate wildland fire prevention/education programs with state foresters, adjacent land management agencies, and wildland fire protection organizations.

### **RESPONSIBILITIES**

#### **Director:**

The Director of the National Park Service is responsible for assuring competent staff is available for:

1. Establishing Servicewide guidelines for wildland fire prevention analysis, planning, and implementation.
2. Establishing Servicewide guidelines for cooperative wildland fire prevention/education activities.
3. Providing Servicewide technical expertise and coordination in wildland fire prevention/education.
4. Assessing, coordinating, and facilitating wildland fire prevention/education training.
5. Participating as a member of the National Wildland Fire Coordinating Group's (NWCG) Wildland Fire Education Team or work closely with a selected representative.

6. Participating in national wildland fire prevention/education efforts or programs.

Regional Directors:

The regional directors are responsible for assuring competent staff is available:

1. Integrating wildland fire prevention/education into all management operations.
2. Coordinating the region-wide development of wildland fire prevention/education programs.
3. Coordinating activities with other land management agencies and wildland fire protection organizations at the state and regional level.
4. Providing technical expertise to individual park units and assessing, coordinating, and facilitating wildland fire prevention/education training.

Superintendents:

The superintendents are responsible for:

1. Supporting and encouraging employee involvement in wildland fire prevention/education programs.
2. Developing and implementing wildland fire prevention plans as a component of the fire management plan and/or the resources management plan.
3. Preparing wildland fire prevention plans, which shall be reviewed annually and updated as required.
4. Integrating wildland fire prevention/education into all management functions, including interpretation, visitor protection, maintenance, and administration.
5. Developing cooperative agreements and/or memoranda of understanding with local land management agencies and wildland fire protection groups to coordinate wildland fire prevention/education programs.
6. Assessing, coordinating, and facilitating local wildland fire prevention/education training.
7. Developing and providing prevention/education, which supports resource management, to the public.

## **WILDLAND FIRE PREVENTION ANALYSIS**

The scope and contents of the wildland fire prevention plan shall be based upon a wildland fire prevention analysis. The analysis shall be conducted as follows:

### **Determination of Risks:**

Risks are defined as any heat source or human activity that can result in wildland fire ignition. Risk assessment is the most important element of the analysis and is the foundation upon which the unit's fire prevention plan is built.

All potential ignition risks should be plotted on a topographic base map overlay of the unit (or in GIS). Risks to be plotted shall include all areas of concentrated use and incidents of human-caused fires for the past five- to ten-year period.

### **Determination of Hazards:**

Hazards are defined as the fuels and the topography on which a wildland fire will spread.

On a clear overlay of the base map (or in GIS), the areas of fuels and topography that present the greatest resistance to control, such as heavy fuels on steep slopes, should be encircled and labeled as "HIGH HAZARD" areas. Areas which present moderate resistance to control, such as medium concentrations of continuous fuels in less rugged topography, should be encircled and labeled as "MODERATE HAZARD" areas. Everything remaining will be labeled as "LOW HAZARD" areas.

### **Determination of Values:**

Values are defined as areas where losses from wildland fire would be unacceptable. Since the determination of values is subjective, they will be formulated through an interdisciplinary process.

Values may include cultural resource, developments, inholdings, sensitive habitats, endangered species, watersheds, nearby urban structures, and adjacent land.

On a separate overlay of the base map (or in GIS), encircle those areas of high and moderate value as determined by the interdisciplinary team. Label these as "HIGH VALUE" or "MODERATE VALUE" areas. Everything remaining will be labeled "LOW VALUE."

Additional information can be found in the Department of the Interior Wildfire Prevention Analysis and Planning Guide. Prevention Analysis software will be posted on the Internet at: <http://www.fire.org>, sometime during March 1999.

## **WILDLAND FIRE PREVENTION PLAN**

### Overview:

The prevention analysis will provide the manager with a tool to determine if a prevention problem exists. The manager will then decide what level of prevention, if any, is required for the park. The wildland fire prevention plan will be developed and implemented through education, engineering, and enforcement activities and is a component of the fire management plan.

The plan should identify fire prevention actions and programs needed to reduce the likelihood of ignitions in areas where wildland fire is unacceptable, and should also identify who is responsible for each activity and when each will be accomplished.

Technical direction for development of the wildland fire prevention plan will be based upon the National Park Service Wildland fire Prevention Handbook. Additional guidance can be found in NWCG Wildland fire Prevention Handbook 4, Chapter 20, Wildland fire Prevention Planning.

### Plan Implementation:

A guide, Wildfire Prevention Strategies (PMS-455) is available through the Publication Management System (NFES-1572) which provides suggestions for actions to take based upon the completed prevention analysis.

1. Education. Prevention programs utilize a variety of methods to inform the public of the need for wildland fire prevention. The specific activities are intended to create and maintain public and employee awareness, understanding, and support. It should be stressed in all public education efforts that a person causing a wildland fire could be held civilly liable for the cost of suppressing the wildland fire as well as being charged criminally.
  - Printed Materials. Printed materials, including general information handouts, site bulletins, and park brochures, should include a wildland fire prevention message. The Department of the Interior Fire Education Team materials are available, as well as Smokey Bear materials through the Fire Prevention Catalog cache from the Cooperative Forest Fire Prevention Program in Grand Rapids, Minnesota.
  - Media. Media campaigns should be initiated which include show-me tours, photo opportunities, and demonstrations and which solicit support for public assistance in

wildland fire prevention/education programs. The park should develop public service announcements and media releases for use by all mass media outlets. Where park Traveler Information Systems (TIS) exist, wildland fire prevention messages should be included which inform visitors of current fire conditions or visitor use and access restrictions.

- Signs and Posters. Appropriately located signs and posters with carefully worded prevention messages are effective. Signs and posters at entrance stations provide an excellent opportunity to alert visitors about local wildland fire conditions and any restrictions. Technical information concerning types of signs and posters can be obtained in NWCG Fire Prevention Handbook 4, Chapter 40.
  - Visitor Services and Facilities. Wildland fire prevention/education information can be integrated into existing visitor service and interpretive presentations, posted on bulletin boards, and used in temporary exhibits. The Department of Interior (National Interagency Fire Center) has tabletop and freestanding displays on the role of fire that can be used upon request to the NIFC External Affairs Office.
  - Personal Contacts. Park, cooperating association, and concession staffs play an important role in communicating the wildland fire prevention/education message in all personal contacts.
  - Internal Communications. Park personnel and concessionaires shall be aware of wildland fire prevention/education procedures and communicate these to the public. Internal newsletters, bulletin board postings, in-park training programs, and tail-gate sessions all provide excellent opportunities to communicate fire prevention/education messages.
  - Outreach Programs. Wildland fire prevention/education messages should be incorporated into off-site programs presented to schools, civic groups, and other organizations. Fire prevention/education information can also be presented at on-site workshops, seminars, and other educational programs. Park residents, inholders, and neighbors can get valuable information on protecting their homes by visiting the (Firewise) website at <http://www.firewise.org/>.
2. Engineering. Wildland fire prevention engineering is the process of reducing risks and hazards by shielding or removing heat sources, or by removing fuels.

Prevention engineering includes activities such as moving fuel away from roadways, removing vegetation from around a structure, creating firebreaks around campgrounds, and using spark arresters on internal combustion engines and fireplaces. Prescribed fire can be used to reduce fuels, thereby minimizing the threat of ignition or fire spread.

Technical information on other engineering areas such as power lines, rights-of-ways, and industrial activities can be found in NWCG Wildland Fire Prevention Handbook 4, Chapter 50.

### 3. Enforcement.

- Visitor Use Regulation. Wildland fire prevention enforcement should be practiced at the minimum level necessary (as defined in RM-9, Law Enforcement Guideline) to gain compliance with fire laws and regulations. The Superintendent's compendium shall include elements to implement the fire prevention plan. Those sections of Title 36, CFR, which concern fire prevention shall be emphasized.
- The inadvertent or intentional ignition of wildland fuels by humans is a crime. All wildland fires will be investigated at the earliest possible time. The investigation may range from a documented determination of cause by the initial attack fire crew to criminal investigation by a qualified arson investigator.

The primary job in investigation will be to obtain all the information and evidence possible to identify the responsible party. The initial actions by the fire crew on the fire will affect the investigation's chance for success. Every initial attack fire fighter needs to receive some minimal training in finding and protecting the point of origin of any fire. They must also understand how to protect the point of origin and any possible evidence. Much of this is covered in the Wildland Fire Cause Determination Handbook of the NWCG.

All violators will be held liable for civil costs and for appropriate criminal action when laws or regulations have been violated.

Cash awards from appropriated funds are authorized to be paid upon arrest and conviction of known arsonists from suppression funds. The option to offer these rewards must be coordinated through the Regional FMO and local law enforcement agencies.

Public Use Restrictions. The Superintendent has the authority to impose public use and access restrictions in times of high fire danger ([36 CFR 1.5](#)) (<http://squid.law.cornell.edu/cgi-bin/get-cfr.cgi?TITLE=36&PART=1&SECTION=5&TYPE=TEXT>). These public use restrictions could include:

- 1) Restricted fire use, i.e., no fires outside developed sites, no fires in backcountry, etc.

- 2) Restriction of public use activities, i.e., off-road vehicles, backcountry access, etc.
- 3) Restriction of park operations or contract activities, i.e., construction blasting, chain saw use, etc.
- 4) Total or partial closure of unit.

### **SPECIAL WILDLAND FIRE EMPHASIS PROGRAMS**

Special emphasis programs are new or on-going programs which can be instituted at all organizational levels. These would include:

#### **NWCG and Department of the Interior Wildland Fire Prevention/Education Programs:**

As part of the National Wildfire Coordinating Group, the Fire Education Working Team provides fire education and prevention expertise on national issues. The National Park Service has a representative on this working team for input on initiatives and dissemination of information.

The Interior agencies have not established a formal working group for prevention and fire education, but specialists work together closely in developing and funding such issues. The National Park Service is an integral part of this.

Fire education is handled as the Fire Management Program Center by the Fire Education and Information Specialist. At the park level, the fire management staff often coordinates with interpretive staff and information officers on fire education issues. Prevention analysis and prevention programs are under fire operations at the national office. Prevention at the park level is provided by the fire management staff.

#### **Cooperative Forest Fire Prevention (CFFP)/Smokey Bear Program:**

Full details on all facets of the Smokey Bear Program can be found in NWCG Handbook 4, Chapter 40.

#### **Wildland-Urban Interface:**

The wildland-urban interface is an increasing national problem affecting all agencies. The encroachment of structures and developments into rural areas has made fire suppression and fire prevention/education activities much more complex. Prevention/education activities that can be effective in urban interface areas include:

1. Fuels Modification. Flammable vegetation should be cleared for 30 feet around structures, but clearance requirements may be greater in areas where slopes and heavy fuels are involved. Woodpiles and other flammable materials should be stored away from the structure.
2. Construction Materials. Structures with wood roofs and sidings are much more vulnerable to wildland fire ignition. Developers and homeowners should be encouraged to install non-combustible roof materials when possible.
3. Roofs and Chimneys. Chimneys should be equipped with spark arresters of no more than ½" non-combustible screens. Roofs should be kept clear of leaves and needles.
4. Access. Access roads to structures should be cleared sufficiently to allow fire trucks safe access and exit. It is always desirable to have two separate routes of access.
5. Water. A good water supply is critical. In areas where water flow is low, an auxiliary water tank with pump may be necessary.
6. Open-Flame Sources. Incinerators, barbecues, welders, and similar open-flame sources should have sufficient clearances from flammable vegetation. A hose and shovel should be kept nearby when burning is underway.

Volunteers in Wildland Fire Prevention. Volunteers can be used in wildland fire prevention/education in compliance with RM-7, the Volunteers in Park Guidelines. Volunteers may be utilized in traditional fashion or in wildland fire prevention/education programs.

### **WILDLAND FIRE PREVENTION/EDUCATION TRAINING**

All National Park Service personnel have wildland fire prevention/education responsibilities. To insure employees have a basic understanding of wildland fire prevention/education, all NPS employees should complete Introduction to Wildland Fire Prevention. This basic course is available for purchase through the Publication Management System (NFES-2114).

### **WILDLAND FIRE PREVENTION POSITIONS/FUNDING.**

Upon completion of the Prevention Planning process and its approval and addition to the Fire Management Plan, positions or funding may be justified to achieve identified and realistic goals. Any request from FIREPRO funding will only be considered when the approved Fire Management Plan documents the need.



### **INTERAGENCY COOPERATION**

Interagency cooperation is critical at all levels. Wildland fire prevention/education programs can be much more effective when resources and programs are coordinated and shared among agencies. Careful coordination is needed so programs are complimentary and reinforce, rather than contradict, each other.

Cooperative wildland fire prevention/education programs should include the establishment of interagency committees, the development of interagency public education programs, and the development and coordinated release of news stories to the media.

The promotion of wildland fire prevention/education should be strongly considered. Cooperative efforts in wildland fire prevention/education activities, with other local fire authorities, provide an excellent avenue for establishing cordial relationships, which pay dividends at the time of an emergency.